Serial No. 10/823,969

Art Unit: 1712

Amendments to the Claims

This listing of claims shall reptace all prior listings and versions of claims in the above referenced application.

Listing of Claims

1. (Currently Amended) An a-sityl terminated polydiorganostic and having the following general formula (I):

$$\begin{array}{c|c} OR^3 & \begin{bmatrix} R^1 & OR^2 \\ SI & SI \end{bmatrix} \\ R^5 & \begin{bmatrix} R^1 & OR^2 \\ SI & R^4 \end{bmatrix} \\ R^4 & A \end{array}$$

wherein

the radicals R¹ are selected from the group consisting of straight chain alignatic radicals, branched alignatic radicals, cycloalighatic radicals, anyl radicals, and analyl radicals, each radical R¹ containing 1 to 12 carbon atoms and optionally one or more heteroatoms and optionally being substituted with halogen, the radicals R¹ being identical or different within the polydlorganositoxane;

the radicals R² and R³, which are identical or different, are selected from the group consisting of straight-chain aliphatic radicals and branched aliphatic radicals.

the radicals R⁴ and R⁹, which are identical or different, are selected from the group consisting of straight-chain aliphatic radicals, branched aliphatic radicals, OR4 and OR4 wherein R² and R³ are defined as above:

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the radicals X and Y, which are identical or different, are selected from the group consisting of O, S, N, PR⁹ and NR⁸.

wherein R^8 is selected from the group consisting of H; $-(C=0)M+R^9$, $-(C=0)-R^9$ and $-(SO_2)-R^9$,

wherein R⁹ is selected from the group consisting of alliphatic radicals, cycloaliphatic radicals, and anyl radicals, each radical R² containing 1 to 12 carbon atoms and optionally containing one or more freterications.

the radicals R⁶ and R⁷, which are identical or different, are selected from the group consisting of straight-chain alignatic radicals with 1 to 12 carbon atoms, branched alignatic radicals with 1 to 12 carbon atoms, cycloalighatic radicals, cycloalighatic radicals containing one or more heteroatoms, anyl radicals, anyl radicals containing one or more heteroatoms, anyl radicals, anyl radicals containing one or more heteroatoms, and

-(C=O)R¹⁰, wherein

R¹⁰ is selected from the group consisting of straight chain ampliatic radicals with 1 to 12 carbon alloris, branched alliphatic radicals with 1 to 12 carbon atoms, and Z-R¹¹, wherein

Z is selected from the group consisting of S, O, FR and NH and R¹¹ is selected from the group consisting of straight chair aliphatic radicals with 1 to 12 carbon atoms and branched aliphatic radicals with 1 to 12 carbon atoms:

n is from 10 to 10000; and

salts of organic solds, inorganic acids or quaternization products thereof salts obtained by reaction of said polydiorganositexane with organic acid or inorganic acid, and products obtained by quaternization reaction of said polydiorganosites and

 (Onginal) The α-silyl terminated polydiorganosis care of claim 1, wherein the radicals R¹ are selected from the group consisting of straight-shain alkyl.

radicals with 1 to 8 carbon atoms wherein optionally one or more halogen atoms are substituted for hydrogen atoms, branched alkyl radicals with 1 to 8 carbon atoms wherein optionally one or more halogen atoms are substituted for hydrogen atoms, 5-membered and 6-membered anyl radicals optionally containing one or more heteroatoms and wherein optionally one or more heteroatoms and wherein optionally one or more heteroatoms and wherein optionally one or more halogen atoms are substituted for hydrogen atoms, the radicals R being identical or different within the polydiorganositoxane.

- 3. (Original) The α-sityl terminated polydiorganesite care of claim 1 wherein
 - the radicals R² and R³, which are identical or different, are selected from the group consisting of straight-chain and branched alkyl radicals with 1 to 8 carbon atoms.
- (Original) The α-sityl terminated polydiorganosaloxane of claim 1, wherein

the radicals R⁴ and R⁵, which are identical or different, are scienced from the group consisting of straight-chain and branched alkyl radicals with 1 to 8 carbon atoms. OR² and OR³.

wherein R² and R³ are identical or different and are selected from the group consisting of straight-chain and branched alkyl laterals with 1 to 8 carbon atoms.

5. (Original) The α-sityl terminated polydiorganosiloxane of claim 1 wherein

the radicals X and Y, which are identical or different, are selected from the group consisting of O, S, N, PR⁸ and NR⁸,

wherein R⁸ is selected from the group consisting of H. =(C=O)NH-R⁹. -

> (C=O)-R⁹ and -(SO₂)-R⁹,

> > wherein R⁹ is selected from the group consisting of allegt and cycloalkyl radicals with 1 to 8 carbon atoms and 5-membered or and 6-membered anyl radicals optionally containing one or more heteroatoms.

6. (Original) The α-sityl terminated polydiorganosiloxarie of claim 1, wherein the radicals R⁶ and R⁷, which are the same or different, are selected from the group consisting of streight-chain and branched alkyl radicals with 1 to 8 carbon atoms 5 membered and 8-membered cycloalkyl radicals, optionally containing one or more double bonds. 5-membered and 6-membered cycloalkyl radicals, optionally containing one or more heteroatoms. Since the first fir

R¹⁰ is selected from the group consisting of straight-chain and branched alkyl radicals with 1 to 8 carbon atoms, straight-chain and branched alkylene radicals with 1 to 8 carbon atoms, Z-R¹¹ radicals wherein Z is selected from the group consisting of S; O, PR² and NH and R¹¹ is selected from the group consisting of straight-chain and branched alkyl radicals with 1 to 8 carbon atoms.

- (Original) The α-silyl terminated polydiorganosiloxane of claim 1, wherein it is between 10 and 10000 and selected to provide the α-silyl terminated: polydiorganosiloxane with a viscosity of 1,000 to 900,000 fix at a seconding to Brookfield RVT, 23 °C, Spindle No. 7, 25 rpm)
- 8. (Original) The a-silyl terminated polydizinganosiloxane of claim 1, wherein the radical X is NH and wherein said NH radical is further readed with one or more

quaternization reagents selected from the group consisting of alkyr halides or wherein said NH radical is further reacted with one or more morganic acads or organic acids selected from the group consisting of sulfuric acid, hydrochloric acid, benzoic acid, terephthalic acid, phithalic acid, caproic acid, stearic acid, ascorbic acid and tarranic acid.

- (Withdrawn) A method for making an α-silyt terminated polydrorganioskokane, the method comprising:
 - (A) a first step of adding one or more visitanes of general formula (II)

m = 0 or 1

wherein.

R² is selected from the group consisting of straight-chain and brailshed aliphatic radicals;

R⁴ is selected from the group consisting of straight-chain or branched appratuc radicals, OR² and OR⁸.

X is selected from the group consisting of O, S, PR⁸, NR⁸ and N,

wherein R⁸ is selected from the group consisting of H, =(C=O)NH R⁸, =

(C=O) —R⁹ and

wherein R⁹ is selected from the group consisting of alignate and cyclealiphatic radicals and anyl radicals, each radical R⁹ containing 1 to 12 carbon atoms and each radical R⁹ optionally containing one of more

heteroatoms:

and

R⁶ is selected from the group consisting of straight-chain and branched aliphatic radicals with 1 to 12 carbon atoms, cycloaliphatic radicals, optionally containing one or more heteroatoms, and radicals, optionally containing one of more heteroatoms, and

-(C=O)R¹⁰, wherein

R¹⁰ is selected from the group consisting of straight-chain and branched aliphatic radicals with 1 to 12 carbon atoms and Z-R¹¹ radicals, wherein Z is selected from the group consisting of S, O, PR⁸ and NH and R¹¹ is selected from the group consisting of straight-chain and branched aliphatic radicals with 1 to 12 carbon atoms.

to one or more silanol terminated polydiorganosiloxanes of general termula: (III):

wherein R¹ is selected from the group consisting of straight chart and branched aliphatic radicals, cycloaliphatic radicals, and radicals, and alighly radicals each radical R¹ containing 1 to 12 carbon atoms and optionally containing one of more heteroatoms and optionally being substituted with halogen; the radicals R² being identical or different within the polydiorganostoxane;

to react both silanol groups; and optionally, if X = NH

(B) a second step, wherein one or more compounds selected from the group consisting of R[®]NCO, R[®](CO)CI, R[®]COOH, R[®]SO₂CI, (R[®]SO)₂O and alkylating agents,

wherein R⁹ is selected from the group consisting of all phalic radicals and anyl radicals, each radical R⁹ containing 1 to 12 carbon atoms and optionally containing one or more heteroatoms:

are added to achieve a complete or partial reaction between the X radical of the product obtained in step (A) and the selected compound of compounds.

- 10. (Withdrawn) The method according to claim 9, wherein slep (A) as carried out in the presence of a catalyst selected from the group consisting of butyl fithium, lithium alkoxides, lithium hydroxide, butyl potassium, potassium alkoxides, potassium hydroxide, butyl sodium, sodium alkoxides, sodium hydroxides and Lewis bases.
- 11. (Withdrawn) The method of claim 9, wherein the α salars according to formula
 - (II) is selected from the group consisting of
 - (N-cyclohexylaminomethyl)methyl-deflioxysilane,
 - (N-cyclohexylaminomethyl)triethoxysilane;
 - (N-phonylaminomethyl)methyldimethoxysiane,
 - (N-phenylaminomethyl)mmethoxysilane, (methacryloxymethyl)methyldanethoxysilane, (methacryloxymethyl)trimethoxysilane,
 - (methacryloxymethyl)methyldiethoxysilene, (methacryloxymethyl)triethoxysilene

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(isocyanatomethyl)methyldimethoxysilane, (isocyanatomethyl)trimethoxysilane, and N-(trimethoxysilylmethyl)-O-methylcarbamate.

- 12. (Withdrawn) A sealant composition comprising an a sily terminated polydiorganosiloxane according to claim 1.
- 13. (Withdrawn) The seatant composition according to claim 12, further compositing one or more compounds selected from the group consisting of water scavengers, fillers, plasticizers, adhesion promoters, photosensitizers and pigments.
- 14. (Withdrawn) The sealant composition according to claim 12, wherein the a sityleterminated polydiorganosiloxane comprises about 10 % by treaten to about 95 % by weight of the sealant composition.
- 15. (Withdrawn) The sealant composition according to claim 12, further comprising a cross-linking catalyst selected from the group consisting of Cewis bases, amines, amidines, and photolatent bases.
- 16. (Withdrawn) The sealant composition according to claim 15 Wherein the cross-linking catalyst is a photolatent base, the photolatent base being selected from the group consisting of 5-benzyl-1,5-diazabicyclo[4:3:0]nersare and 8-benzyl-1,8-diazabicyclo[5:4:0.]undecane, wherein the benzyl residue in each can further be substituted by halide, alkyl, nitril, nitro, alkoxy or aromatic residues condensed to the benzyl residue.
- 17. (Withdrawn) A method of using the sealant composition of Claim 12, comprising

a first step of applying the sealant composition to a substrate to be sealed, a second step of exposing the sealant composition to moisture, and an optional third step of activating a photolation base comparison by irradiation.

- 18. (New) The α-sityl terminated polydiorganosiloxane of claim 1, wherein at least one of the radical X and the radical Y is N or NR8.
- (New) The α-silyl terminated polydiorganics loxane of claim 1. Witerest at least one of the radical X and the radical Y is NH.
- 20. (New) The α-silyl terminated polydiorganosiloxane of claim 1, subject to the proviso that when the radical X and the radical Y are both © and R⁰ and R⁰ and R¹ are both –(C=O)R¹⁰, R¹⁰ is selected from the group consisting of straight chair and branched alkyl radicals with 1 to 8 carbon atoms and –Z-R¹¹ radicals where Z corresponds to S, O, NH and R¹¹ corresponds to a straight chair or branched alkyl radical with 1 to 8 carbon atoms.